

# PATENT ABSTRACTS OF JAPAN

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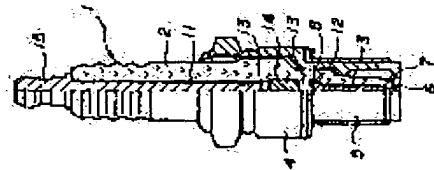
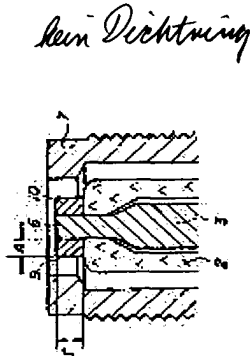
## (54) SPARK PLUG FOR INTERNAL COMBUSTION ENGINE

### (57) Abstract:

PURPOSE: To stabilize the ignition member and to make it possible to form the ignition member to the tip of a center electrode surely by gearing a ring-form flange to the tip of the center electrode, and after that, connecting them in a laser welding.

CONSTITUTION: An ignition member 6 arranged at the tip of a center electrode 3 is composed by fixing the center electrode 3 with an upper flange 8 inside an insulator 2, and after that, gearing a flange 9 which consists of a ring-form anti-spark consumption type material such as a precious metal material to the center electrode 3 which consists of an oxidization-proof material or the like, placing a clearance of less than 0.05mm, in the ultrasonic pressing-in process or the like. And, YAG

laser is radiated to connect in the circumferential form along the connection of the flange 9 and the center electrode 3 to overlap the beads generated by the laser welding, while they are being rotated together with the insulator 2. When the thickness of the flange 9 is made T, and the difference between the outer diameter and the inner diameter of the flange 9 is made A, the periphery 10 of the flange 9 can be prevented from melting in the laser welding process by making  $T \geq 2A$ .



### LEGAL STATUS

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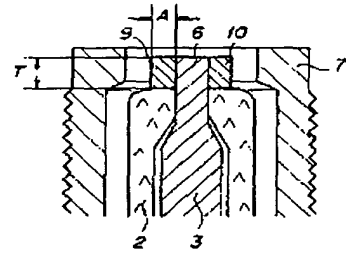
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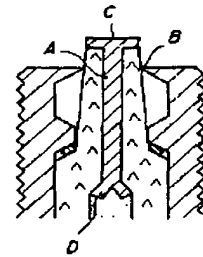
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特開平1-289084(3)

第 2 図



第 3 図



第 1 図

